

REMARKS

By the above actions, claims 1 and 16 have been amended and claims 18 and 19 have been cancelled. In view of these actions and the following remarks, further consideration of this application is now requested. The language added to claims 1 and 16 is merely a reworded version of the subject matter of claims 18 and 19, so that no new issues should be considered to have been raised thereby, while the number of claims and issues remaining for the Examiner's consideration has been reduced. Accordingly, entry of this Amendment is in order and is requested, at least for purposes of appeal.

Claims 18 and 19 have been objected to due to problems in antecedent basis. In view of the cancellation of these claims and the rewording of their subject matter when incorporating it into claims 1 and 16, this objection should be withdrawn and such action is requested.

Claims 1, 2, 5, 7, 9, 16, and 18-21 have again been rejected under 35 USC § 103 based upon the German reference to Popp when viewed in combination with the patent to Zyl, while the other claims have again been rejected based on this combination of references when viewed in further combination with one of the disclosures of Yasui, Bruccoleri et al., Henson, Takamuki, Haynes and Brennen et al. for the reasons noted at length by the Examiner in his Action. Likewise, applicant continues to believe that these rejections are inappropriate, especially as they related to claims 18 and 19 in the form now presented as further amended claims 1 and 16.

In the paragraph spanning pages 4 and 5 of the Examiner's Action it is stated that Popp discloses an analog transmission path and a digital transmission path "wherein the digital path that includes a microprocessor that is not active during normal measurement operation but only provided to perform corrections." This characterization of the Popp reference is clearly erroneous and based on the Popp reference is clearly erroneous and based on an incorrect interpretation of what is disclosed in this reference. Column 1, lines 47-59 of the German text as translated in paragraph [004] of the translation states that:

.... The processing of measuring values for dynamic processes takes place on the analog transmission path only. **The processor merely carries out**

corrective interventions on the analog transmission path. The configuration of the measuring transducer and the communication with external auxiliary devices or computers takes place via the digital transmission path without interrupting the transmission of the measuring values. The invention makes it possible to realize low clock frequencies for the processor and the analog/digital converter and therefore low current consumption. [Empahsis added]

Nothing in this paragraph or elsewhere in this reference is there even the slightest indication that the microprocessor is not active during normal measurement operation. To the contrary, the last sentence of this paragraph indicates that the processor is always operating at **low clock frequencies**, thereby making it unnecessary to temporarily shift it between an awake mode and a sleep mode in order to reduce power consumption.

Furthermore, what is clear from the Popp disclosure is that the analog path is the primary path and the digital path is always active at the same time as the analog path since "the correction values calculated by the processor circuit are combined with the analog output signal of the sensor after a conversion into analog signals" as set forth in the last clause of the sole claim of the Popp reference. Thus, not only does Popp does not disclose applicant's temporary shifting of the processor from an awake mode to a sleep mode in which the processor is inactive, but it would be inconsistent with Popp's disclosure for the digital path not to be active at the same time as the analog path. Thus, it is clear that here is simply no basis for the Examiner's comments made relative to claims 18 and 19 to the effect that the microprocessor is not active during normal measurement operation.

As for the Zyl patent, the transducer arrangement of this patent does not have an analog measurement signal transmission path. Furthermore, as can be seen from the description of column 2, lines 13-38, Zyl teaches two alternative manners for achieving low power consumption. One technique is analogous to that of Popp in that clock rate of the processor is reduced, only in this case proportionally to a power deficit condition, thus affecting processing speed similarly to the technique of Popp. In the other technique, to which the Examiner makes reference, when a deficit in the ability of the power regulating

circuit to meet the requirements of the processor is detected, the processor is shifted into a “‘sleep’ mode in which program execution is halted.” In both of these alternatives, initiation of the power reduction or the sleep mode is triggered by the occurrence of a power deficit.

Thus, a person of ordinary skill viewing the combined teaching of Popp and Zyl, would consider Zyl’s alternative technique of adjusting clock speed as the logical modification to apply to Popp since it is related to and compatible with Popp’s concept. However, even if Zyl’s primary technique of sending the processor into an inactive sleep mode were to be applied to the process and device of Popp, it would not lead to the present invention but rather would result in a transducer having an analog transmission path and a digital path in which the digital path is operated at a low clock frequency during normal operation and **only if there is a power deficit**, would the processor be shifted into a sleep mode. Moreover, since the processor is operated at a low clock frequency during normal operation in accordance with Popp’s teachings, it is unlikely that the processor would need to be shifted into a sleep mode at all (keeping in mind that Zyl’s alternative mode in which the clock rate of the processor is reduced requires no sleep mode), and in any case, the time during which the processor would need to be shifted into the sleep mode would most certainly be much shorter than the time during which it is active, the direct opposite of the present invention.

As for the other references relied upon secondarily by the Examiner with respect to claims 3, 4, 6, 8, 10-15, and 17, none of these references teach the concept of the present invention which distinguishes the present invention from that of Popp and Zyl. Therefore, even if it were obvious to apply their teachings to Popp and Zyl, the result could not lead to the presently claimed invention.

Accordingly, it is submitted that the Examiner the outstanding rejections based in whole or in part upon the combination of the Popp and Zyl references should now be withdrawn and such action is hereby requested.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise, which could be eliminated through discussions with applicant’s representative, then the Examiner is

invited to contact the undersigned by telephone in order that the further prosecution of this application can thereby be expedited.

Lastly, it is noted that a separate Extension of Time Petition accompanies this response along with a deposit account authorization for payment of the requisite extension of time fee. However, should that petition become separated from this Amendment, then this Amendment should be construed as containing such a petition and authorization for the required payment applied to Deposit Account No. 50-2478 (740116-358).

Respectfully submitted,

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